



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/611,783	06/30/2003	Wade L. Hennessey	KON03-0003	1898
22835	7590	06/15/2007		
PARK, VAUGHAN & FLEMING LLP 2820 FIFTH STREET DAVIS, CA 95618-7759				
			EXAMINER SWEARINGEN, JEFFREY R	
			ART UNIT 2145	PAPER NUMBER
			MAIL DATE 06/15/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/611,783	<b>Applicant(s)</b> HENNESSEY ET AL.	
	<b>Examiner</b> Jeffrey R. Swearingen	<b>Art Unit</b> 2145	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-20 and 22-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 and 22-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Specification***

1. The specification is objected to. The status of co-pending cases should be updated in the specification.

***Claim Rejections - 35 USC § 101***

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 10-18 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 10-18 are directed to a computer-readable storage medium. Applicant defined a computer readable storage medium as "any device or medium that can store code and/or data for use by a computer system. This includes, but is not limited to...computer instruction signals embodied in a transmission medium (with or without a carrier wave upon which the signals are modulated)." Applicant is directed to Annex IV of the Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility, subsection c. "[I]t does not appear that a claim reciting a signal encoded with functional descriptive material falls within any of the categories of patentable subject matter set forth in 101...such signal claims are ineligible for patent protection because they do not fall within any of the four statutory classes of 101."

***Claim Objections***

4. Claim 21 was not submitted.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent

Art Unit: 2145

granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-20 and 22-28 are rejected under 35 U.S.C. 102(e) as being anticipated by Auerbach (US 6,832,253 B1).

7. In regard to claims 1, 10, 19, Auerbach disclosed:

*receiving a request for content from a client at a directory server; column 6, lines 42-43*

*determining if the client is a member of an arena in a list of arenas, wherein an arena is a specified set of nodes on a network; column 6, lines 27-40. Determining whether a client is a member of an arena is done by proximity between the client and potential video servers. and*

*if the client is a member of the arena, applying routing rules to the delivery of content to the client, including routing rules specific to the arena. Column 8, lines 56-67 define proximity as functioning along a specific network path.*

8. In regard to claims 2, 11, 20, Auerbach disclosed:

*defining an arena by receiving input from a user and using the input to specify one or more edge routers that surround nodes on the network that are members of the arena. The content control system receives or otherwise identifies the location of one or more clients requesting content. Column 7, line 21. When the user requests the content in column 6, this is the input. The input determines the proximity, which in turn specifies the edge routers surrounding nodes on the network that are members of the arena. Column 7, lines 18-67.*

9. In regard to claims 3, 12, 22, Auerbach disclosed:

*after an arena is defined, a node can be dynamically assigned to and removed from the arena as the node is physically moved. Proximity is determined by ping, routing protocols, routing tables, and traceroute. See columns 9 and 10 for multiple ways to dynamically change the arenas as the node is moved based on the actual path calculations performed by these network management tools.*

10. In regard to claims 4, 13, 23, Auerbach disclosed:

Art Unit: 2145

*defining an arena by receiving input from an administrator and using the input to specify a list of addresses for nodes that comprise the arena. See routing tables in column 10, lines 33-42.*

11. In regard to claims 5, 14, 24, Auerbach disclosed:

*a routing rule can prohibit traffic across a specific network link. A bad proximity is attributed to a circuit in column 9, line 17.*

12. In regard to claims 6, 15, 25, Auerbach disclosed:

*a routing rule can prohibit traffic across a specific network link when the network link reaches a predetermined utilization. Quality of Service is used in determining proximity in column 9, lines 42-50. Network links are labeled based on bandwidth and average traffic in column 10, line 16.*

13. In regard to claims 7, 16, 26, Auerbach disclosed:

*the routing rule specifies a maximum amount of bandwidth that can be used for content delivery purposes on a specific network link. Quality of service in column 9, lines 42-50.*

14. In regard to claims 8, 17, 27, Auerbach disclosed:

*applying routing rules to the delivery of content to the client involves*

*attempting to receive content at the client from nodes on a local subnet;*

*if no nodes are available on the local subnet, attempting to receive the content from nodes in a local arena;*

*if no nodes are available on the local arena, attempting to receive the content from nodes in non-local arenas as specified by a fallback list;*

*if no nodes are available on non-local arenas, attempting to receive the content from nodes that are topologically close on a router graph, wherein the router graph specifies how the nodes on the network are interconnected; and*

*if no nodes are available on the router graph, attempting to receive the content from an origin server.*

This claim uses routing rules based on multiple proximities. Multiple proximities are taught in column 13, lines 31-39. The packets are transmitted based upon their "proximity" to the

Art Unit: 2145

server and the client. A local subnet would be the nearest proximity. If the local subnet was not available, local nodes would be the next proximity. If the local arena nodes were not available, topologically close nodes would be a lower proximity, and the origin server would be the lowest proximity. See further column 9, lines 4-24.

15. In regard to claims 9, 18, 28, Auerbach disclosed:

*the fallback list for arenas specifies an ordering of arenas.* Routing tables specify preferred outgoing lines in column 10, lines 33-42.

### ***Double Patenting***

16. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

17. Claims 1, 10 and 19 are provisionally rejected on the ground of nonstatutory double patenting over claims 1, 15, 24, 38, 47 of copending Application No. 10/211,602. This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common subject matter, as follows: The claims in the instant application are a broader recitation of the claims currently present in 10/211,602 as of this office action.

Art Unit: 2145

Furthermore, there is no apparent reason why applicant would be prevented from presenting claims corresponding to those of the instant application in the other copending application. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

### ***Conclusion***

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Grove et al. US 7,020,719 B1

Garcia-Luna-Aceves et al. US 2002/0026511 A1

Menon et al. US 2002/0152318 A1

Lear et al. US 2003/0099202 A1

Amini, Lisa et al. "Modeling Redirection in Geographically Diverse Server Sets." Proceedings of the 12<sup>th</sup> International Conference on World Wide Web WWW '03. May 20, 2003. ACM Press. 472-81.

Wang, Limin et al. "The Effectiveness of Request Redistribution on CDN Robustness." 5<sup>th</sup> Symposium on Operating Systems Design and Implementation. December 2002. ACM Press. 345-60. ACM SIGOPS Operating Systems Review.

Krishnamurthy, Balachander et al. "On the Use and Performance of Content Distribution Networks." Proceedings of the 1<sup>st</sup> ACM SIGCOMM Workshop on Internet Measurement IMW '01. November 2001. ACM Press. 169-82.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey R. Swearingen whose telephone number is (571) 272-3921. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Cardone can be reached on 571-272-3933. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2145

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Jason Cardone  
Supervisory Patent Examiner  
Art Unit 2145

JRS